TRADITIONAL SAUNA HEATER

Installation and Operating Instructions

Sense UB Mini Series

TYLÖ

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Sauna360 congratulates you on your decision to enjoy the finest sauna available...

Welcome to the growing family of Tylö® sauna owners.

Before you begin reviewing the manual, please take a moment to register your warranty. Doing so will assist us in contacting you for any important notification.

Prior to registering, you will need the serial number(s) located on the equipment.

To register, please go to http://tylo.com/en-us/warranty

FOR YOUR RECORDS

Control Model/Serial Number: _____

Heater Serial Number: _____

Contactor Box Model/Serial Number: _____

Date Purchased: _____

Dealer: _____

Address: _____

Phone Number: _____

Website/Email: _____

If questions arise regarding this product or this manual, please contact your authorized *Tylö* dealership. They are trained professionals who are familiar with the product as well as new sauna ownership concerns. Their expertise will facilitate the enjoyment of your new ***Tylö*** sauna.

IMPORTANT: SAUNA360 reserves the right to change specifications or design without notification and without incurring any obligation.

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SECTION 1. BEFORE YOU BEGIN

This manual is for installation and operation of the Sense UB Mini Series (1801-17-1902, 1801-22-1902) sauna heater mated with a Bliss (1601-52, 1601-52-1) control and a CB 21-1 (1201-21-1) CB Box.

Sense UB Mini Series Heater	**Bliss Control**	**Contactor Box**
(1801-17-1902, 1801-22-1902)	(1601-52, 1601-52-1)	CB 21-1 (1201-21-1)

Figure 1.

Use these instructions when installing the heater into an approved sauna room. For best results and for protection of product warranty, please read, understand and follow all safety information, safety placards, and installation and operating instructions prior to starting the installation process. When completed, leave these instructions with the owner.

If questions arise regarding this product or this manual, please contact your authorized *Tylö* dealership. They are trained professionals who are familiar with the product as well as new sauna ownership concerns. Their expertise will facilitate the enjoyment of your new ***Tylö*** sauna.

SECTION 2. SAFETY INFORMATION

2.1. CONSTRUCTION and INSTALLATION SAFETY

WARNING - ELECTRIC SHOCK HAZARD: High voltage exists within this equipment. There are no user-serviceable parts within this equipment. Have the equipment installed and serviced only by qualified and licensed personnel in accordance with local and national codes.

WARNING - ELECTRIC SHOCK HAZARD: DO NOT install electrical receptacles inside the sauna room.

WARNING: If installing a fire sprinkler system inside the sauna room, ensure it is properly rated for sauna room temperatures.

CAUTION: During construction, observe all recommended minimum safe distances between the heater and combustible materials. See see “DIAGRAM 1. MINIMUM DISTANCE to COMBUSTIBLE MATERIAL” on page 4. Recheck all measurements to verify minimum safe distances are maintained.

CAUTION: DO NOT construct the sauna room as to restrict air flow through the bottom of the heater. Ensure proper ventilation locations and air exchange rates are provided for volume of sauna room. See “SECTION 6. SAUNA ROOM VENTILATION” on page 7 for details.

CAUTION: Loose electrical connections can cause heat damage to wires, terminal blocks and other components. Improper connections may void product warranty. Ensure all electrical connections are installed and inspected by qualified and licensed personnel.

IMPORTANT: The door to the sauna room must open outward, to the exterior of the sauna room.

IMPORTANT: DO NOT install a lock or mechanical locking device onto the door of the sauna room. If needed, use only a magnetic or spring-loaded catch mechanism that allows the door to open when pressed or pulled.

IMPORTANT: To prevent electrical shock, provide adequate electrical grounding to the heater and CB Box.

IMPORTANT: Do not install a shower in the sauna room.

NOTE: Use only approved sauna room materials for interior construction of the sauna room. Installation of unapproved materials or accessories may void product warranty

NOTE: To protect product warranty, only qualified licensed personnel should perform installation and service to this equipment.

NOTE: A GFCI (Ground-Fault Circuit Interrupter) device is not required by NEC. Only install a GFCI if required by local codes, however, be aware this will cause nuisance electrical circuit trips during use of the product.

2.2. USER and OPERATIONAL SAFETY

WARNING: Prolonged exposure to elevated temperatures can induce hyperthermia. Hyperthermia occurs when internal body temperature reaches several degrees above normal (98.6°F). Symptoms of hyperthermia include an increase in body temperature, dizziness, lethargy, drowsiness, and fainting. Effects of hyperthermia include failure to perceive heat, failure to recognize the need to exit the room, unawareness of impending hazard, fetal damage in pregnant women, physical inability to exit the room and unconsciousness.

WARNING: DO NOT take a sauna if using alcohol, recreational drugs, or prescribed medication as these may greatly increase risk of hyperthermia, personal injury or death.

WARNING - FIRE HAZARD: DO NOT use the sauna room for drying clothes, bathing suits, towels, etc. **DO NOT** hang towels above heater or place objects onto the sauna heater. Only place rocks supplied with the heater onto the heating elements. **DO NOT** place combustible materials onto the sauna heater.

WARNING - FIRE HAZARD: IMMEDIATELY DISCONTINUE using the sauna if the walls or ceiling exhibit unusual discoloration and/or darken in color.

WARNING - HOT SURFACES: The heater is extremely hot during operation. Keep hair, head, hands, body, and appendages on the safe side of guard rails. Keep children and vulnerable individuals a safe distance away from the heater. **DO NOT TOUCH** the heater while in operation as severe burns to skin may result.

WARNING - CORROSIVE: DO NOT pour chlorinated pool or spa water onto the heater as corrosion will occur and void product warranty.

WARNING: DO NOT pour excessive water onto the heater as damage may occur and void product warranty.

IMPORTANT: If pregnant or a person in poor health, consult with a physician before using sauna.

IMPORTANT: DO NOT exercise, play or roughhouse while using the sauna. Be safe and respectful of everyone.

IMPORTANT: Keep children, minors, and vulnerable individuals a safe distance away from a warming or hot sauna heater. Be a responsible sauna user. When needed, provide operating instructions to those less experienced. Keep operation of the sauna safe for yourself and others to enjoy.

NOTE: Inspect the sauna regularly. Check for maintenance of the heater, control, and benches. Replace wood surfaces should any show signs of deterioration.

SECTION 3. INSTALLATION REQUIREMENTS

To ensure safe use of the heater, verify the following criteria are met:

- Install all electrical wiring in accordance with NEC, state, and local codes.
- Use only circuit breaker and power cable size (AWG) appropriate for the rated heater being installed. See “Table 1. Heater Models/Output/Room Volume/Electrical Ratings”.
- Ventilation must comply with instructions provided in this manual. See “SECTION 6. SAUNA ROOM VENTILATION” on page 7.
- Ensure the selected heater output (kW) is appropriate for the sauna room volume (Cu. Ft.). Do not exceed the minimum or maximum volumes specified in “Table 1. Heater Models/Output/Room Volume/Electrical Ratings”.

  NOTE: Every square foot of glass on the sauna room adds an additional cubic foot of sauna volume.

- Use only the wall brackets supplied with the heater.

DIAGRAM 1. MINIMUM DISTANCE to COMBUSTIBLE MATERIAL

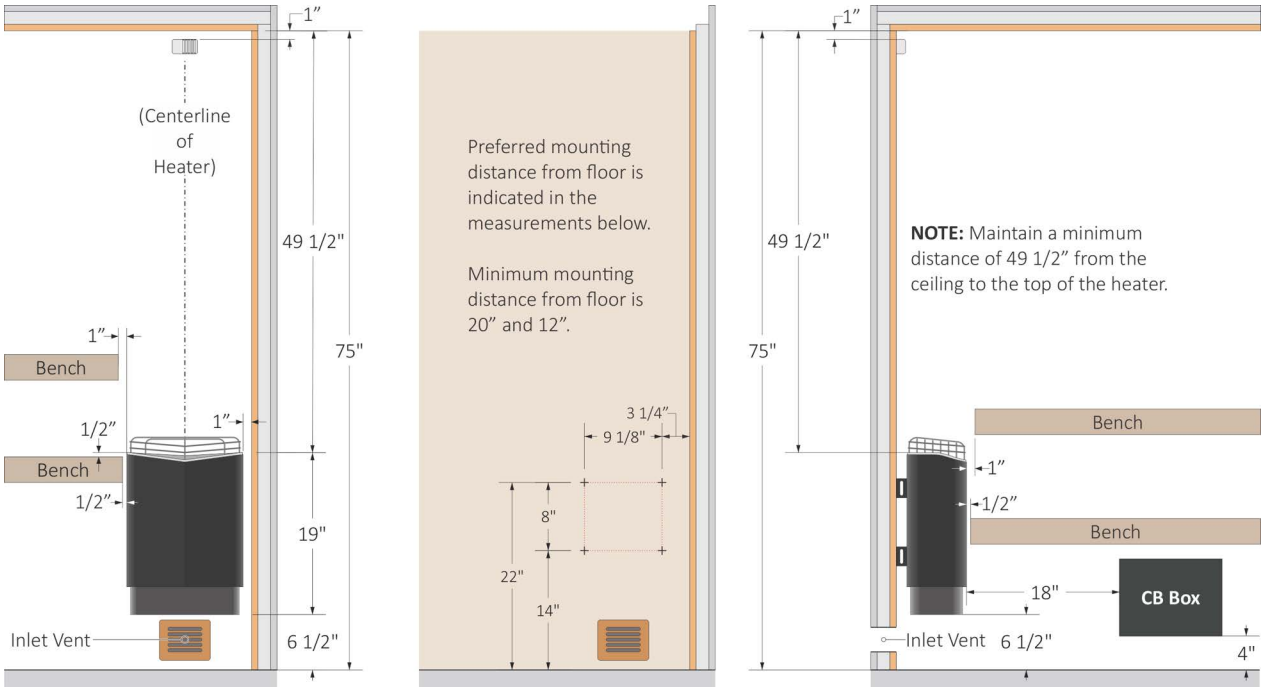


Table 1. Heater Models/Output/Room Volume/Electrical Ratings

Heater Model/ Product Number	KW	Minimum Room			Maximum Room		Phase	VAC	Sauna Amps	Wire Size	
		Floor Area	Wall Ht.	Vol. Cu. Ft.	Wall Ht.	Vol. Cu. Ft.				Power Supply to CB Box	CB Box to Heater
Sense UB 1	1.7	7 sq. ft.	75	60	96”	80	1	120	15	2 #14 AWG + GR	2 #14 AWG + GR
Sense UB 2	2.2	8 sq. ft.	75	70	96”	100	1	120	20	2 #12 AWG + GR	2 #12 AWG + GR

SECTION 4. TOOL REQUIREMENTS

The following tools and materials are needed for installation and connection. (Tools are not included with the heater kit.)

- Digital or bubble level
- Adjustable Wrench
- Electric Drill
- Standard Drill Bit Set
- Hole Saw, size 7/8”
- #2 Phillips Head Screw Driver
- #2 Standard Blade Screw Driver

SECTION 5. INSTALLATION PLANNING

Before installing the sauna heater, plan the details and mounting locations for the following:

- Sauna Heater (**A**)
- Control (**B**)
- Temperature Sensor (**C**)
- Air Inlet Vent (**D**)
- Air Exhaust Vent (**E**)
- CB Box (**F**)
- electrical cable routing and connections

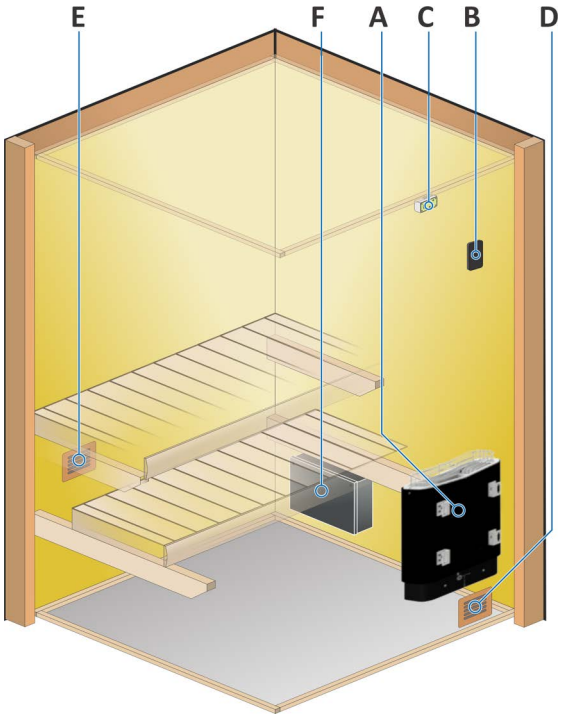


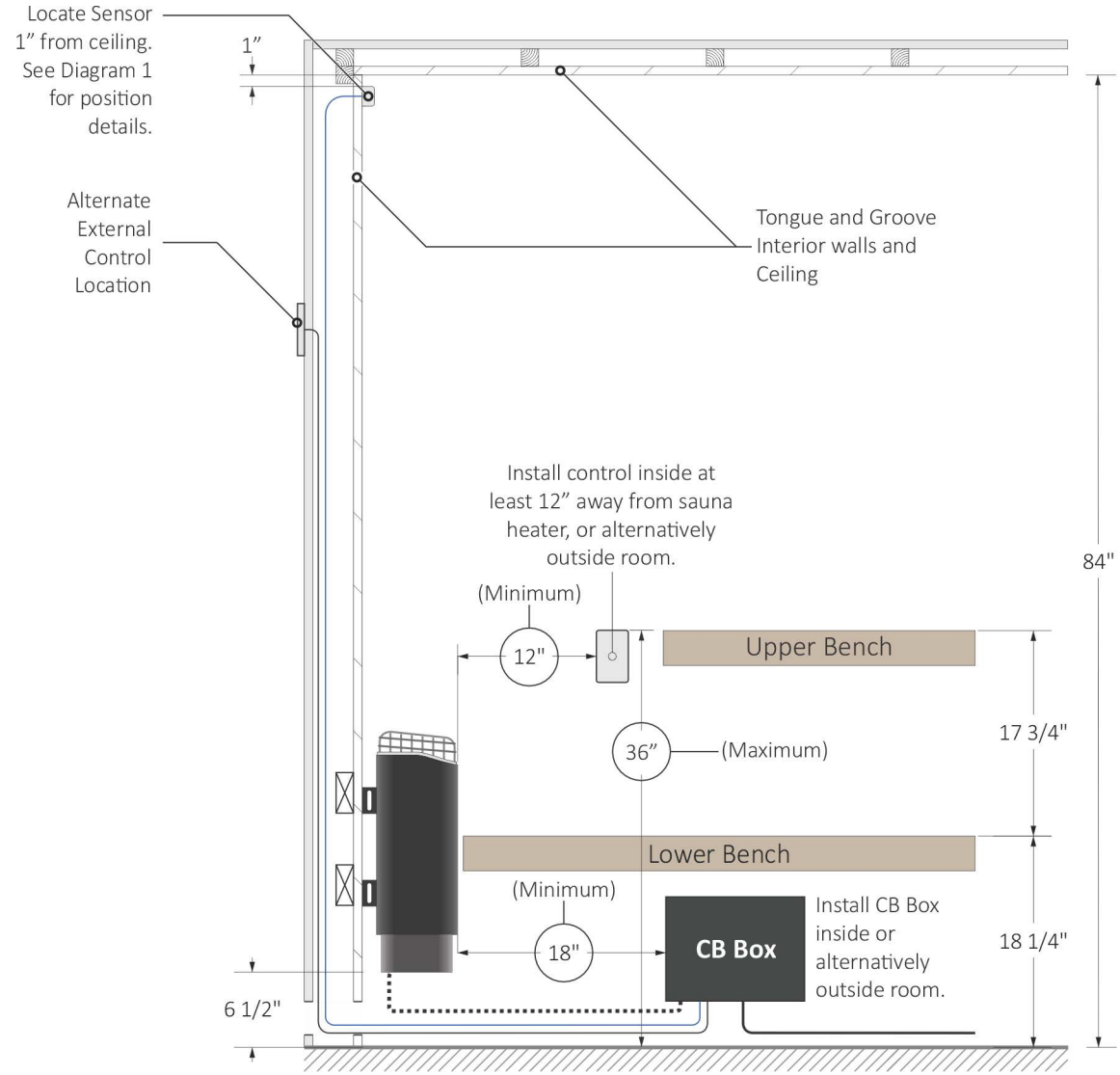
Figure 2. Installation Planning

NOTE: Install only one traditional heater per room.

- Air Inlet Vent (**D**)- Locate the fresh air inlet beneath the heater. Ensure no obstacles restrict airflow from exterior of room. For proper air circulation and heat convection, the inlet and exhaust vents **MUST** open to the same exterior room/space/environment.
- Exhaust Vent (**E**)- In typical installations, locate the vent on a wall diagonally away from the heater below the upper bench.

DIAGRAM 2. RECOMMENDED DIMENSIONS

Refer to “DIAGRAM 1. MINIMUM DISTANCE to COMBUSTIBLE MATERIAL” on page 4 for minimum spacing requirements.



SECTION 6. SAUNA ROOM VENTILATION

Air in the sauna room should exchange approximately 6 times per hour. Ventilation openings must meet with UL Specification 875. Determine the minimum opening size using one of the following formulas:

For $R < 31$, $V > 9.3$

For $R \geq 31$, $V \geq 0.3*R$

Where R = The floor area of the room measured in square feet, and

V = The minimum vent size measured in square inches.

*Example: Where a room is 54 sq. ft. (9’ x 6’), 54 is larger than 31. Multiply 54 x 0.3 = 16.2 sq. in. Make the vent openings equivalent to 4” x 4”.

The cubic inch openings through the finished trim of the air inlet and the exhaust vents to the exterior environment must be equal to each other.

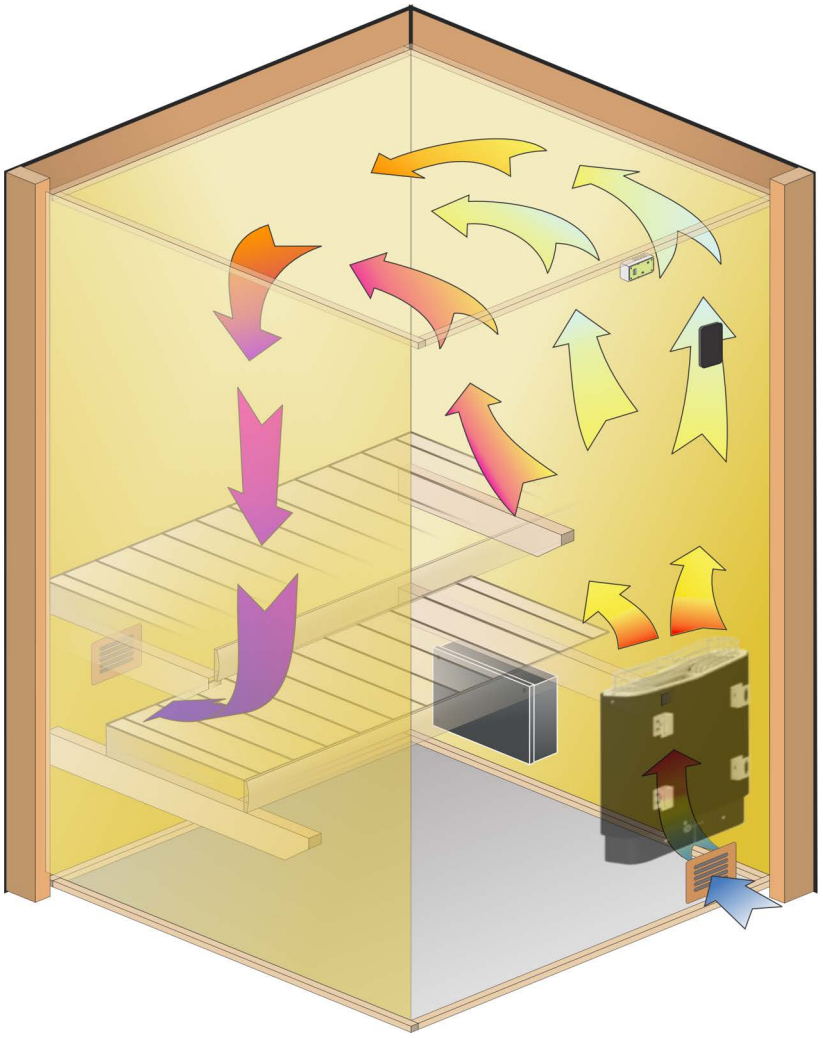


Figure 3. Example Heat Convection Pattern

Section 1. ROOM TEMPERATURES

Temperatures measured in a sauna room will vary by height and distance measured from heater. Ventilation helps reduce the effect, however, will not eliminate it completely.

The highest temperature of a room will always be at the ceiling directly above the sauna heater. This temperature should not exceed 194°F (90°C). Air temperature measured at the opposite side of the room near the ceiling will be 15°F to 25°F lower than directly above the heater.

The temperatures shown in the figure below provides a general perspective of temperature stratification in a given room. **Due to variations in ventilation and construction, actual temperature measurements will vary**.

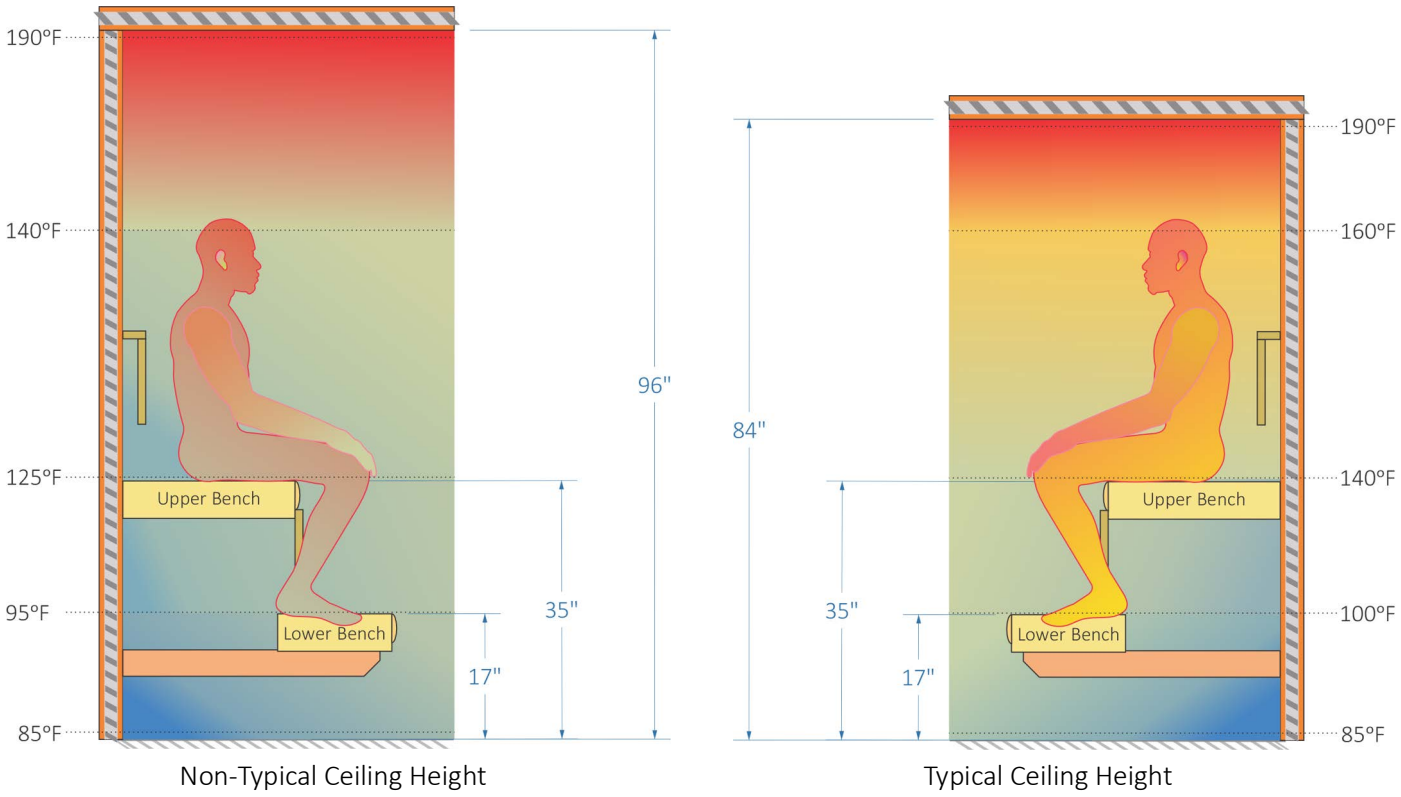


Figure 4. Temperature Stratification Vs. Ceiling Height

SECTION 2. ROOM CONSTRUCTION

For best practices during construction, adhere to the following:

- Comply with all safety information provided in sub-section “2.1. CONSTRUCTION and INSTALLATION SAFETY” on page 2.
- Recommended minimum flooring thickness of 5/8” concrete or tile.
- Frame up the room using standard building materials.
- Rough-in all audio and lighting wires, temperature sensor cable and control cable before insulating and applying foil vapor barrier.
- Use a minimum of R12 insulation between 16” on-center 2x4 studs and joists.
- Use a foil vapor barrier between the studs, joists and interior tongue and groove planks.

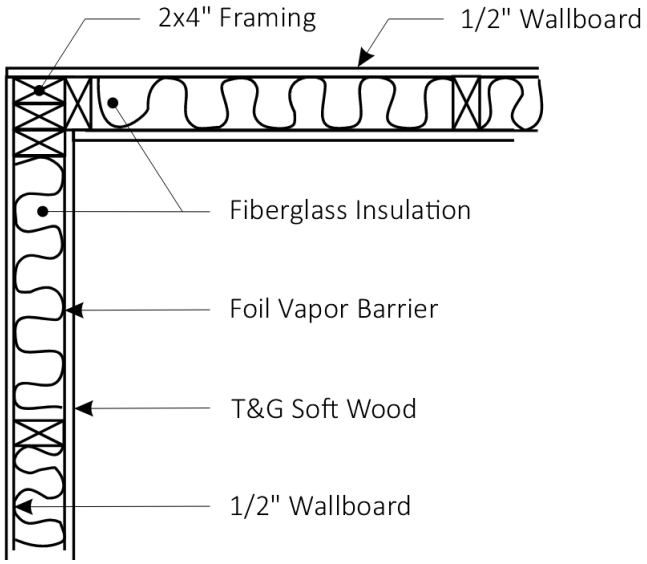


Figure 5. Typical Wall Construction

1. Construct the framing for the room using standard spacing (studs and joists 16” on-center).

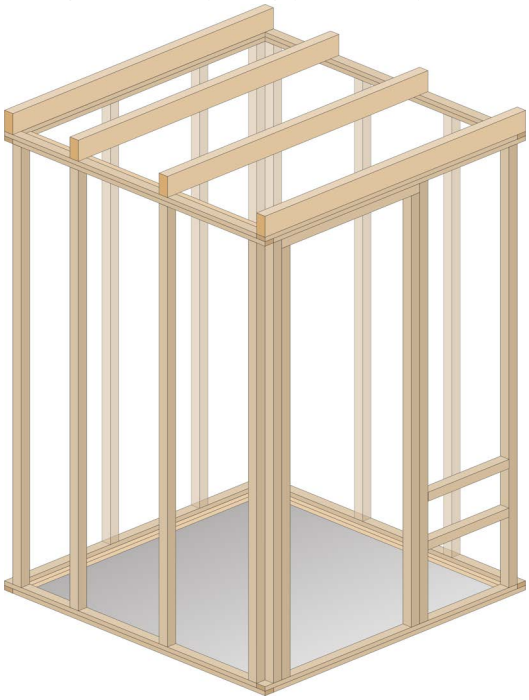


Figure 6. Example Framing for Horizontal Planks

2. Rough-in cables for the following:
   a. Pre-install wire from where the CB box will be located to where the heater will be located.
   b. If an optional lighting system is part of the installation, route the lighting cables to the appropriate locations.
      i. The Bliss is capable of operating ONLY the lighting package purchased with the system.
      ii. Only approved lighting available from the dealer can be used with this system. Refer to the specific LED lighting package for installation instructions.
   c. If an optional sound bar audio system is part of the installation, plan for locating the sound bar cabinet under the lower bench after sauna room construction is complete.
   d. Route the temperature sensor cable from where the CB box location is planned to where the sensor will be mounted above the traditional heater.
   e. Route the control cable from where the CB box location is planned to where the control will be mounted.
   f. Cable for high limit switch from the heater.
3. As tongue and grove planks are installed on the ceiling, cut holes where appropriate for the ceiling lights.
4. Ensure the traditional sauna heater is installed in accordance to these instructions.
5. **DO NOT** operate the heater without properly placing the included rocks inside the heater and having the rock guard installed. See “SECTION 11. PREPARING SAUNA ROCKS” on page 22.
6. Install the safety placards. See “SECTION 10. INSTALLING SAFETY PLACARDS” on page 18.

SECTION 3. INSTALLING SAUNA HEATER

1. From the back of the heater, locate the eight (8) Torx 20 head machine screws (two screws towards each corner on the back of the heater).
2. Remove only two (2) screws from one corner at a time. See Figure 8.
3. Arrange the mounting bracket so the keyhole tab is oriented out to the side of the heater.
4. Using the same two (2) screws removed previously, attach the bracket to the heater.
5. One at a time, repeat Step 2 through Step 4 for each of the remaining brackets.
6. Using a tape measure, verify the dimensions for the locations of the keyholes and the distance from the keyholes to the bottom edge of the heater. See Figure 7.
7. Using the dimensions shown in Figure 9. measure the locations on the wall and mark the points for where to mount the heater.
8. Using a 5/32” drill bit, pre-drill four (4) pilot holes.
9. Install the four (4) bracket screws that are provided, leaving about 1/8” of the screw shafts exposed.
10. Hang the heater brackets onto the four (4) bracket screws. See Figure 10.
11. Tighten the four (4) bracket screws.
12. On an accessible bracket, drill a small pilot hole in the wall just inside the lower keyhole opening.
13. Install the lock screw that is provided into the pilot hole. See Figure 10.

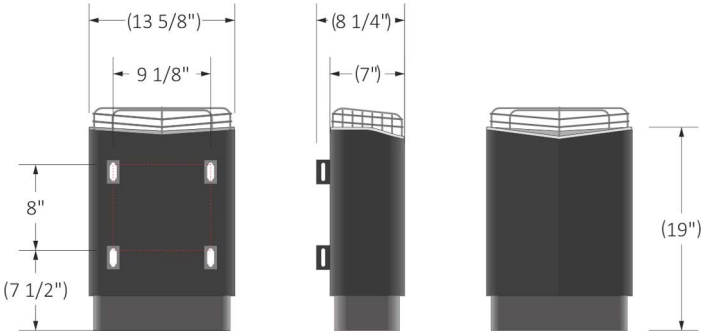


Figure 7. Heater Dimensions

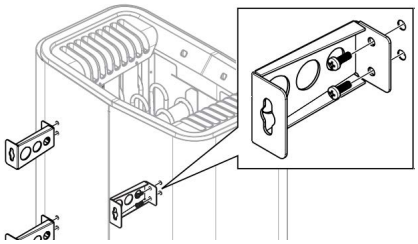


Figure 8. Installing Mounting Brackets

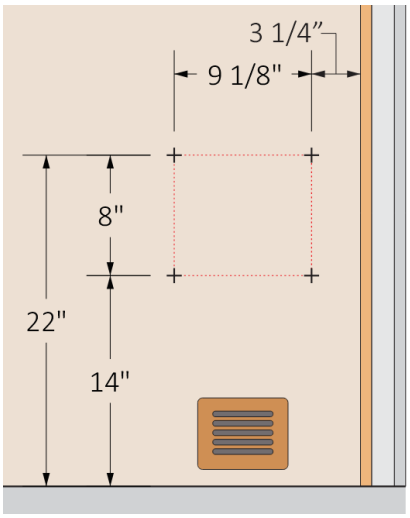


Figure 9. Wall Mount Dimension

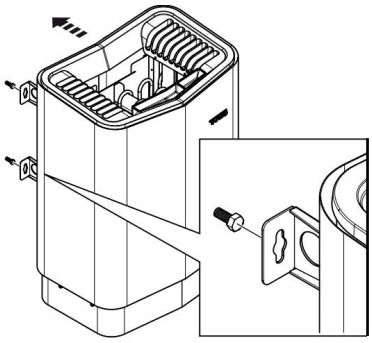


Figure 10. Hanging the Heater

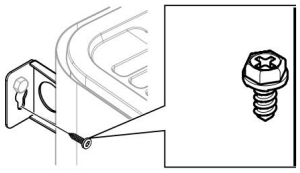


Figure 11. Installing Lock Screw

SECTION 4. INSTALLING CB BOX

1. Remove the cover of the CB Box to gain access to the four (4) mounting holes located in the back of the box.
   - CB Box Dimensions: 11-3/8" W x 8-1/2" H x 3-1/2" D
2. Set the hardware and cover aside in a safe location.
3. If mounting the CB Box on a wall inside the sauna, observe the specifications described in See "DIAGRAM 2. RECOMMENDED DIMENSIONS" on page 6.

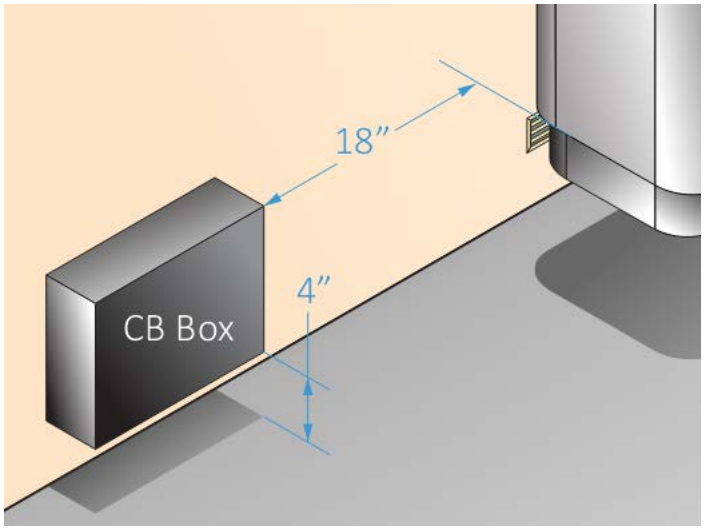


Figure 12. Installing the CB Box

   - Alternatively, install the CB Box on an exterior wall of the sauna room, keeping the CB Box within a short distance from the heater.
4. Using the four (4) 3/16" x 3/4" screws supplied with the kit, attach the CB Box to the wall.

SECTION 5. ELECTRICAL HOOK-UP

Electrical installation must be made by a licensed electrician on accordance with the National Electric Code and local regulations.

1. Please see "Table 1. Heater Models/Output/Room Volume/Electrical Ratings" on page 4 for determining wire and power requirements for the specified heater installation.
   - Use copper wire only, temperature rated for a minimum of 90°C.
   - A ground conductor must be provided to the heater. See "DIAGRAM 3. ELECTRICAL, 120VAC 1 PHASE".
2. Route wires through the holes provided in the bottom of the CB Box, high voltage side.
3. Connect wires to the correct terminals.

   NOTE: The heater includes a small wire harness for the high limit control. This **MUST BE CONNECTED** for safe operation of the sauna.
4. Route the high limit control wires from the sauna heater through an available hole in the bottom of the CB Box, low voltage side.

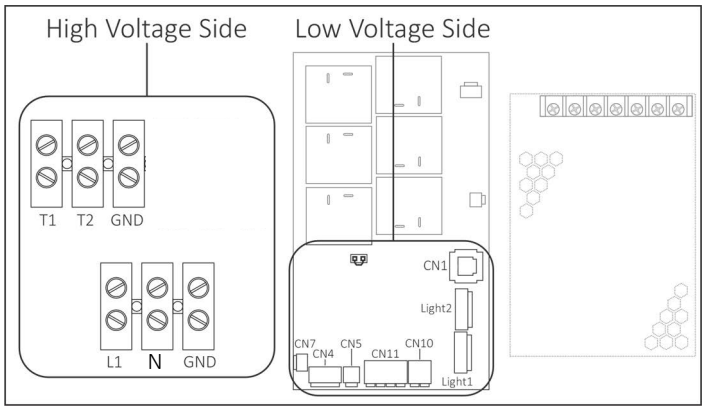


Figure 13. CB Box Interior

NOTE: Maintain separation of high and low voltage wires.

5. Connect the wires to the high limit terminals (CN5) on the circuit board. See DIAGRAM 3.

DIAGRAM 3. ELECTRICAL, 120VAC 1 PHASE

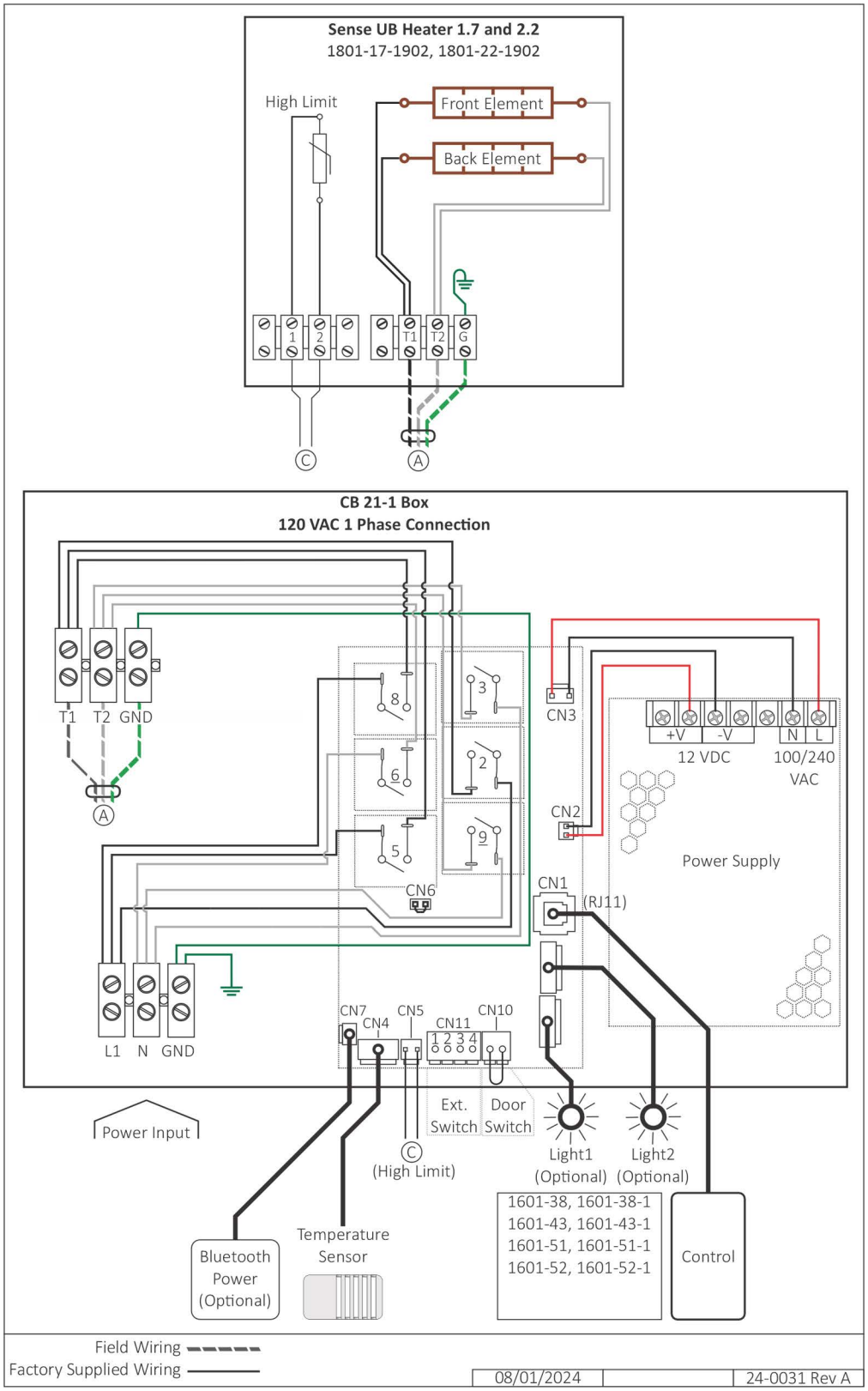
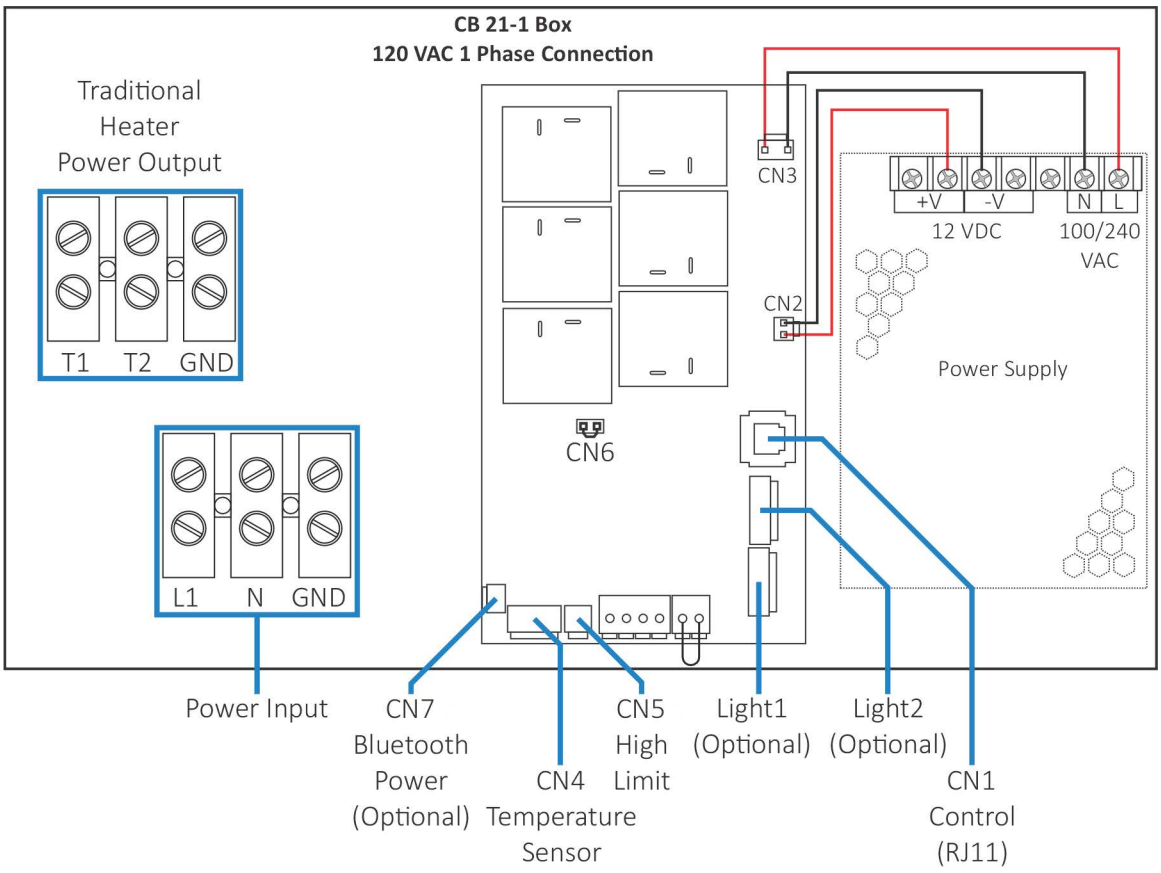


DIAGRAM 4. CB BOX INTERNAL VIEW



SECTION 6. INSTALLING TEMPERATURE SENSOR

1. Per the selected heater install configuration (see "DIAGRAM 1. MINIMUM DISTANCE to COMBUSTIBLE MATERIAL" on page 4), route the 17-foot low voltage sensor cable from the specified sensor location to the CB Box.

   NOTE: Per low voltage electrical wiring codes, route the sensor cable completely separate from wires carrying over 50 volts.

2. If necessary, drill 7/8" diameter holes in studs and/or ceiling joists to route sensor cable.
3. Route other end of the sensor cable through an access hole located on the bottom of the CB Box.
4. Connect the sensor cable to the CN 4 terminal.
5. Using a flat-tipped screw driver, unsnap the cover from the sensor.
6. Using the two (2) screws provided, mount the sensor to the finished surface, then snap the cover back in place.

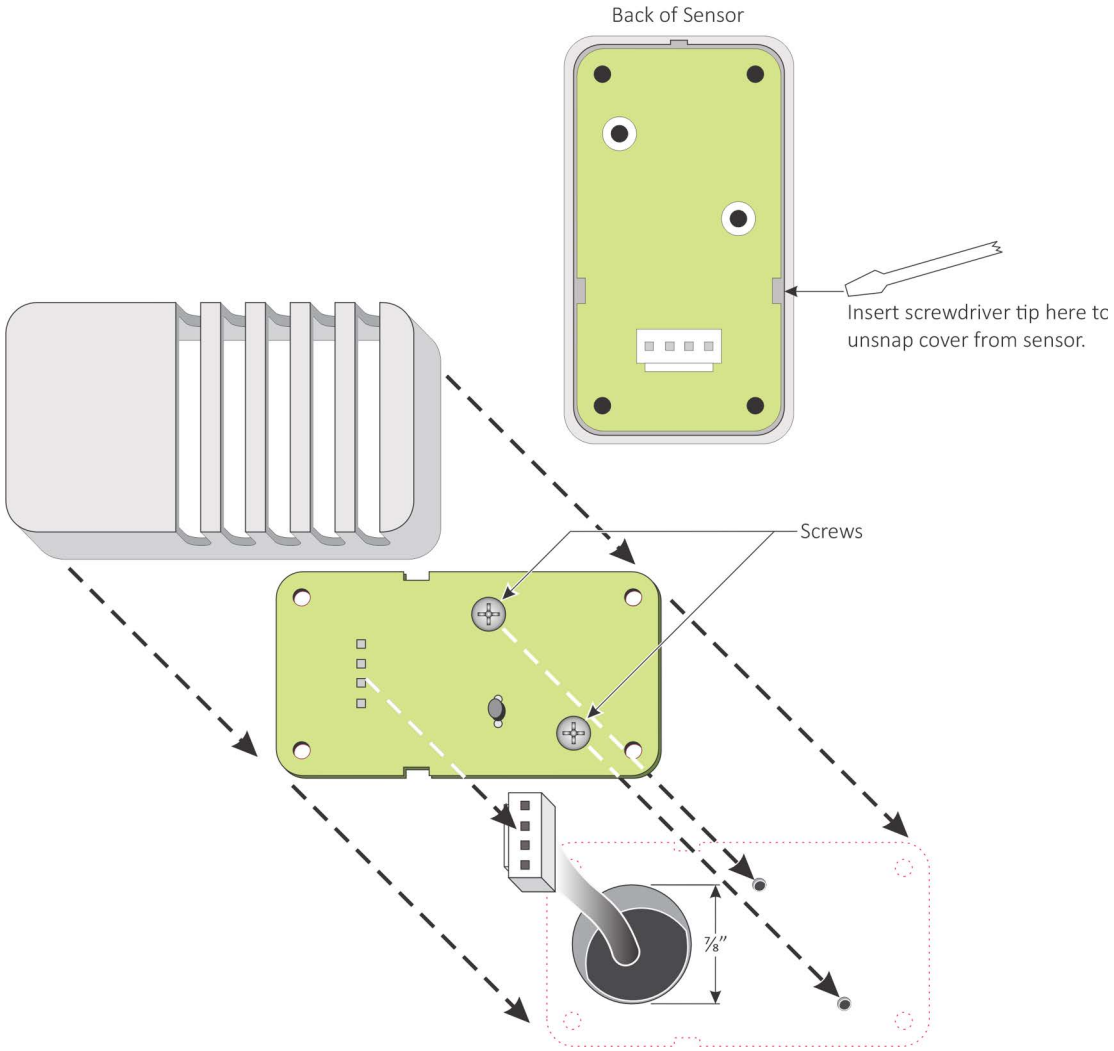


Figure 14. Installing Temperature Sensor

SECTION 7. CONTROL INSTALLATION

The Bliss control is weather resistant and water resistant, allowing it to mount either on the interior or exterior of the sauna room.

1. At the desired location, cut a hole in the wall using a 1-3/8" (35mm) hole saw.

   NOTE: When installing on the interior of the sauna, ensure to follow the specifications provided in "DIAGRAM 2. RECOMMENDED DIMENSIONS" on page 6.

2. Route the RJ11 control cable from CB Box to the cut opening.

   NOTE: Use the factory-supplied RJ11 control cable only. Do not staple through or otherwise damage the cable.

3. Using a clean, lint-free cloth, wipe all surfaces of the control to remove dust, debris and residue.
4. Orient the control with the UP arrow located on its back.
5. From the included parts, apply the double-sided tape to the back of the control.
6. Connect the RJ11 control cable to the female RJ11 jack located on the back of the control.
7. Wipe down the wall surface surrounding the cut hole to remove dust and debris.
8. Remove the protective backing from the double-sided tape.
9. Carefully square-up the control over the cut hole in the wall.
10. Press the control firmly in place, adhering the double-sided tape to the wall.
11. Route the other end of the RJ11 control cable through an access hole located on the bottom of the low-voltage side of the CB Box. See Figure 16.
12. Connect the RJ11 control cable to the CN1 female RJ11 jack.

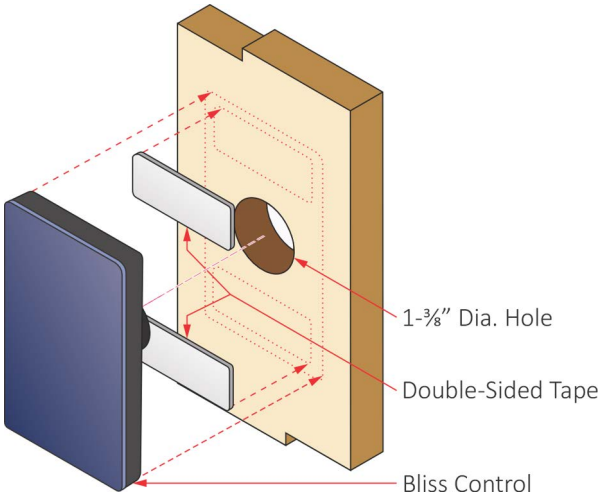


Figure 15. Roughing in the Control

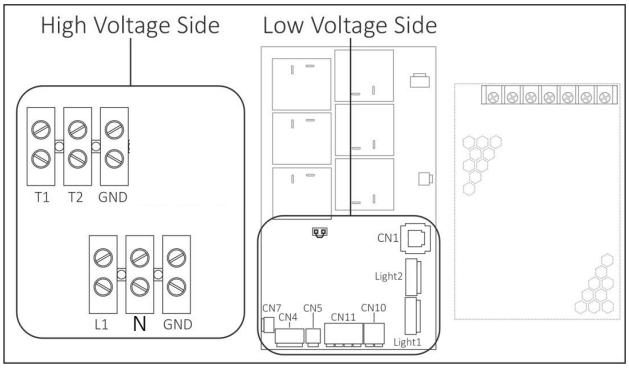


Figure 16. CB Box Interior

Section 8. INSTALLING LIGHTS

Lights are optional equipment. The control is capable of operating two (2) lighting packages purchased with the system.

Use ONLY approved lighting available from your dealer for this control system. Refer to your specific LED lighting package for installation instructions.

Section 9. OPERATING the CONTROL

The instructions provided here are for operating a traditional sauna heater. See **Bliss Operating Instructions** for further details on the control.

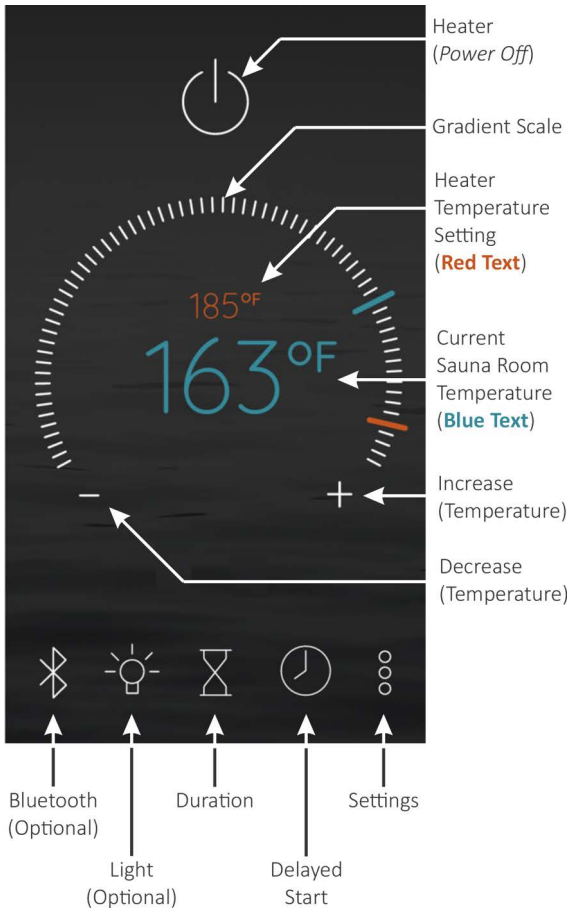


Figure 17. Control Icons

APPLYING POWER

Tap the **Power** icon once. The default settings for the temperature is 194°F, the bath time is 60 minutes. These settings are adjustable from 119° to 194°. Length of the sauna can be set from 0 to 60 minutes. The time delay before start can be up to 24 hours. Any changes are remembered by the heater for your next bath. Should the heater power be lost then restored, the settings will return to their default values.

GRADIENT SCALE

The scale is touch sensitive. Use the tip of your finger to scroll for increasing or decreasing a selected setting (i.e. temperature, duration, light color, light intensity, bluetooth audio volume).

HEATER TEMPERATURE SETTING

The temperature setting of the heater is displayed in small **red** colored text.

CURRENT SAUNA ROOM TEMPERATURE

The current sauna room temperature measured by the temperature sensor is displayed in large **blue** colored text.

INCREASE

Alternative to the gradient scale, tap the plus sign (+) icon to incrementally increase a selected setting.

DECREASE

Alternative to the gradient scale, tap the minus sign (-) icon to decrementally decrease a selected setting.

SETTINGS

Tap this icon to open the *Settings* screen.

DELAYED START

Tap this icon to open the *Delayed Start* screen.

DURATION

Tap this icon to open the *Bath Time* screen.

LIGHT (Optional)

The Bliss control can operate one(1) or two (2) optional lighting packages purchased with the system. Tap this icon to enable/disable the lights.

BLUETOOTH (Optional)

The Bliss control can operate **ONLY** an optional Bluetooth® package purchased with the system. Tap this icon to enable/disable audio.

SECTION 10. INSTALLING SAFETY PLACARDS

Three (3) metal safety placards are included inside the installation instruction envelope packaged with the sauna system.

Figure 18. Caution Placard

1. Position the CAUTION placard in plain sight on the interior wall directly above the sauna heater and attach with the two (2) screws provided.

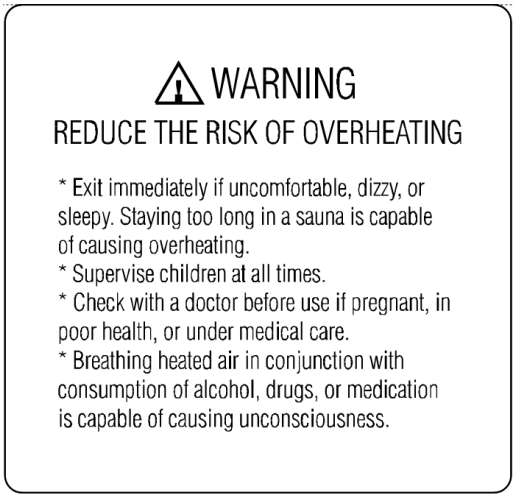

WARNING
REDUCE THE RISK OF OVERHEATING
* Exit immediately if uncomfortable, dizzy, or sleepy. Staying too long in a sauna is capable of causing overheating.
* Supervise children at all times.
* Check with a doctor before use if pregnant, in poor health, or under medical care.
* Breathing heated air in conjunction with consumption of alcohol, drugs, or medication is capable of causing unconsciousness.

Figure 19. Warning Placard

2. Position the two (2) WARNING placards in plain sight on both sides of the doorway to the sauna.
3. Attach the placards using the eight (8) Screws provided, four (4) screws each.

SECTION 11. PLACING SAUNA ROCKS

The rocks supplied with the heater were selected with the best traditional sauna performance in mind.

HEAVY OBJECT: A full container of rocks is heavy. To avoid injury, bend at the knees when picking up the box.

- Use of other rock types may void heater warranty.
- **NEVER** operate heater without rocks in place!
- **RINSE** rocks with water before placing in the heater.

CAREFULLY place rocks loosely around the heater elements to allow efficient air circulation.

1. Remove the heater guard from the top of the heater.

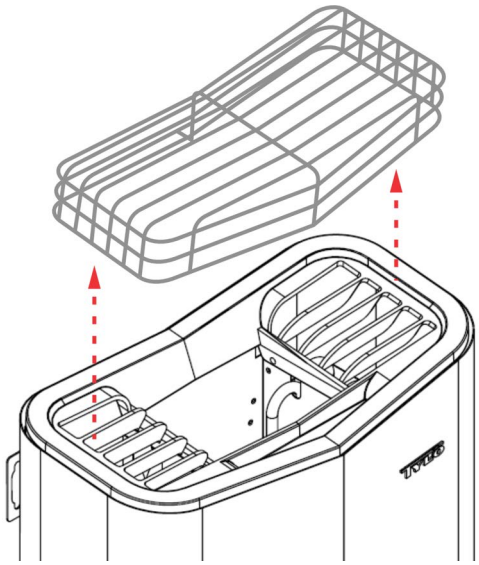


Figure 20. Removing Heater Guard

2. For the first layers, place smaller rocks around the outer perimeter of the heating elements.
3. Fill the middle sections with larger rocks.
4. Ensure the elements stay vertical while carefully filling the heater with rocks.
5. Place rocks loosely in the center of heater to allow heat to rise easily up the middle of heater.
6. Loosely cover the tops of all elements with rocks.

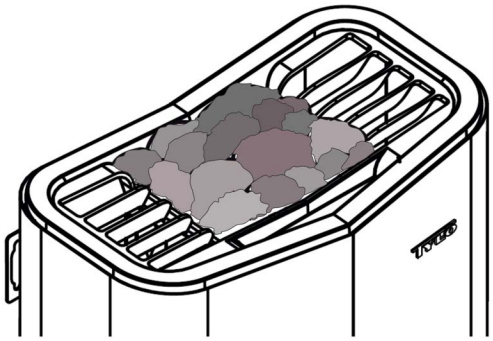


Figure 21. Placing Rocks on Top of Elements

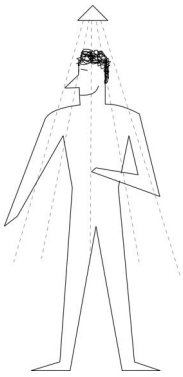
7. Be careful not to pack the rocks too densely on top of the heater elements or onto the side chambers as this can impede airflow.

Figure 22. Do Not Pack Rocks Too Densely

8. Re-install the heater guard with the screws removed previously.

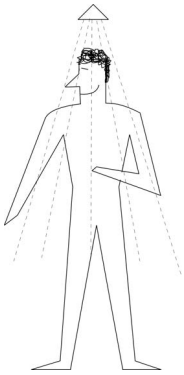
SECTION 12. HOW TO TAKE A SAUNA

- Devote adequate time to completely relax while taking a sauna bath.
- Remove clothing and jewelry. Apply a towel loosely about the body.
    - To enjoy the soothing effect of steam, splash a small amount of water onto the heated sauna rock.
    - Use one dipper full (approximately 1/2 cup) of clean water at a time, keeping exposed skin clear of the steam as it rises off the rocks.
    - **DO NOT** use chlorinated pool or spa water, as corrosion damage may result.
    - **DO NOT** smoke, exercise or drink alcoholic beverages while in the sauna room.
- After ten (10) minutes or when perspiration begins, exit from the sauna, relax in the dressing area, followed by a cool shower.
- Stay hydrated, drinking water is best.
- The allotted cool down time should equal the amount of time occupying the sauna.
- Step back into the sauna room and remain for five (5) or ten (10) minutes.
- Repeat the cycle two (2) or three (3) more times. End with a brisk shower, rinsing in cool water.
- Put on clothing only when perspiration has stopped and the body is completely dry.

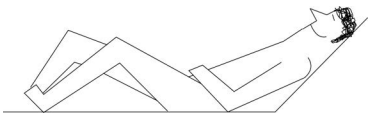


Shower

Sauna Bathe



Shower



Rest/Relax

Hydrate

SECTION 13. MAINTENANCE

Inspect sauna room at the end of each day the room to ensure the control and system is off.

The sauna, like a bathroom, should be kept clean and odor free. Towels or mats should always be used on benches and floor as perspiration otherwise penetrates the soft wood. To clean and remove perspiration stains, use soap or detergent in warm water, best applied with a scrub brush. Badly soiled surfaces may require sanding. Sand paper wrapped around a wooden block works well.

Air out the sauna often by keeping the door and vents open when the sauna is not in use. Saunas that are in daily use should be washed down at least once a week to keep them clean and the air fresh. Duck board should be removed from the sauna, the sauna floor mopped and dried in a conventional manner, and the duck board thoroughly scrubbed and dried before returning to the sauna room. The sauna heater should be wiped down occasionally with a damp cloth to remove lint and dust. The rocks should be removed once a year for cleaning and small or crumbled rocks replaced.

Benches and supporting structure must be inspected annually for potential deterioration due to age, dry rot or abuse. Any boards with signs of deteriorations should be replaced immediately to avoid possible injury.

SECTION 14. TROUBLESHOOTING

Should you need to contact the dealer or outlet you purchased the product, please have the model and type numbers of the heater, CB Box and control available prior to calling.

14.1. PRE-HEAT MODE

If the air temperature inside the sauna is below 10°F (-12°C) at startup, or if the temperature sensor is not detected, the *CAUTION Pre-Heat Mode* screen appears.

Figure 23. CAUTION Pre-Heat Mode Screen

1. Allow the heater to run for 5 minutes.
   - If the sensor is recognized, the CAUTION screen will go away.
   - If after 5 minutes the sensor is not recognized, the *WARNING Sensor Not Detected* screen appears. and the heater turns off.

14.2. SENSOR NOT DETECTED

When the sensor is not detected, power to the heater is disabled.

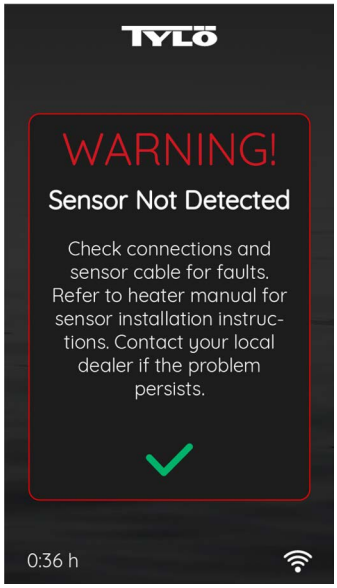

TYLÖ
WARNING!
Sensor Not Detected
Check connections and sensor cable for faults. Refer to heater manual for sensor installation instructions. Contact your local dealer if the problem persists.
0:36 h

Figure 24.

1. Before performing a visual inspection, turn off circuit breakers to the sauna to remove all electrical power.
2. Refer to the content of the associated **Heater Installation and Operating Instructions** for details on the temperature sensor, cable and CB Box.
3. Check sensor electrical connections at the CB Box and at the sensor, looking for loose or broken wires, loose, corroded, or tarnished connections.
4. Inspect condition of the sensor circuit board for corrosion, tarnish and cold solder joints.
5. If the condition of the circuit board and electrical connections look good, then inspect the whole length of the sensor cable for visible damage.
6. When the inspection is completed and any user-fixable issues are corrected, re-apply power and test the operation of the sauna.
7. If the problem persists, contact your dealer.

14.3. HIGH LIMIT ERROR

When the high limit switch trips/activates, power to the heater is disabled.

While the heater is on and if the temperature at the heater rises above the high limit threshold, the heater shuts off, an audible control alarm is sounded, and the *WARNING High Limit Error* screen appears.

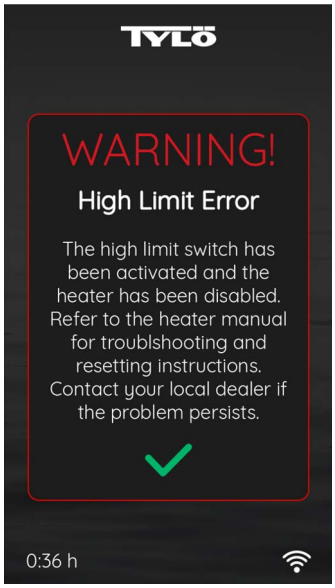

TYLÖ
WARNING!
High Limit Error
The high limit switch has been activated and the heater has been disabled. Refer to the heater manual for troublshooting and resetting instructions. Contact your local dealer if the problem persists.
0:36 h

Figure 25.

1. Tap the green colored check mark.
   - The audible alarm turns off and the Home screen with heater off appears.
   - All icons on the Home screen remain functional, except for the **Power** icon.
2. Wait until temperature drops below the low temperature threshold and the high limit resets.
   - If the **Power** icon is tapped before the high limit has had time to reset, the WARNING High Limit Error screen will re-appear.
3. After the high limit has reset, tap the **Power** icon to turn the heater back on.
4. Refer to the content of the associated **Heater Installation and Operating Instructions** for details on sauna ventilation, how the heater is mounted, and placing sauna rocks to diagnose and correct the trouble. If the problem persists, contact your dealer.

14.4. DOOR OPEN

If an optional door switch (not provided by Sauna360) is installed, this message occurs when the control detects the sauna door is open for longer than 30 seconds.

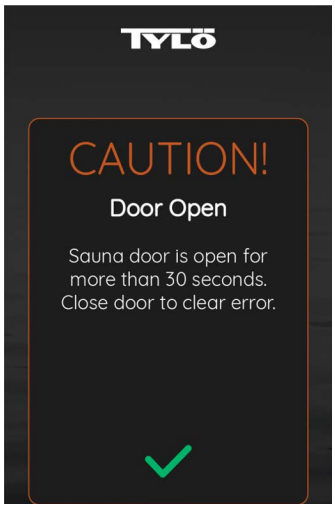


Figure 26. CAUTION Door Open

Close the door within two (2) minutes and the current sauna session will continue and the error message will go away.

If the door is open for greater than two (2) minutes, the *WARNING Door Open* screen appears and power to the heater is disabled.

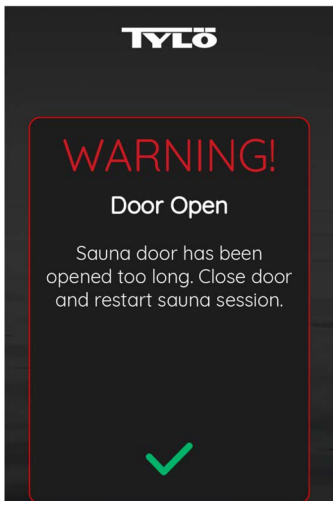


Figure 27. WARNING Door Open

Close the sauna door and press the green check mark, the Home Screen screen appears.

Press the **Power** icon to restart the sauna session.

14.5. JUMPER ERROR

This error occurs when the control detects an electrical jumper is open on the main board located in the CB Box.

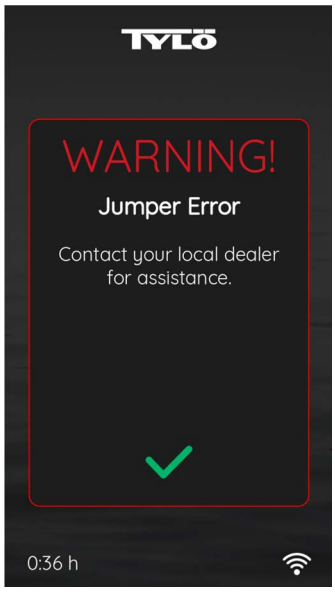


Figure 28.

There are no user-serviceable parts inside the CB Box. Shut off the breakers to the sauna and contact your dealer for assistance.

14.6. INFORMATION

When this message appears, tap the green check mark. Before inspecting, turn off the heater and allow the rocks to cool down before inspection/replacement.

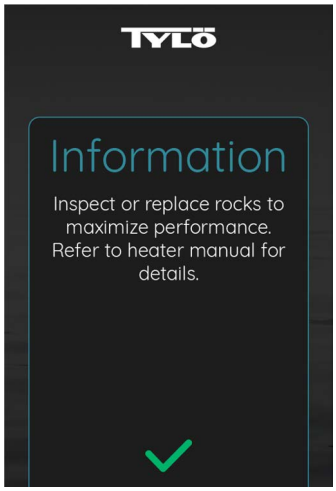


Figure 29.

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